Ghana - Transportation

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Overview

Identification

COUNTRY
Ghana

EVALUATION TITLE
Transportation

EVALUATION TYPE
Independent Evaluation

ID NUMBER
DDI-MCC-GHA-IE-TRANS-2018-v01

Overview

ABSTRACT
The evaluation of investments in the road infrastructure of Ghana has three main components of the design:

1. Recalculate the Economic Rates of Return (ERRs) for the project using Highway Design and Management (HDM-4) Roads Economic Decision (RED) models. HDM-4 and RED are World Bank models used to assess the economic benefits of improvements in road infrastructure. This analysis will use road condition and traffic data to estimate the economic return of the roads investments.

2. Conduct a performance evaluation of the roads investments. We will study road maintenance practices, assess who is using the roads and whether reductions in transportation costs are shared with users. The performance evaluation will use project records and administrative data, a vehicle intercept survey, focus groups, and interviews with roads officials and commercial operators.

3. Impact evaluation that includes a spatial analysis of economic activity along the roads (still in design).

EVALUATION METHODOLOGY
Independent Ex-Post ERR, HDM-4, and RED

UNITS OF ANALYSIS
Community, households, administrative units, other

KIND OF DATA
Other

TOPICS

Topic	Vocabulary	URI
Transportation	MCC Sector	

KEYWORDS
Ghana, Ghana compact, Roads, Infrastructure, Transportation, HDM-4, RED

Coverage

GEOGRAPHIC COVERAGE
The project took place on feeder roads in the Northern Region, Volta Region, Eastern Region and Central Region of Ghana, as well as the N1 highway in Accra and a trunk road in the Ashanti region.

UNIVERSE
Road users

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Mathematica Policy Research	

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Mathematica Policy Research	Mathematica		Independent Evaluator

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2018-07-02

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MCC Compact and Program

COMPACT OR THRESHOLD
Ghana Compact I

PROGRAM
To address constraints to economic growth and poverty reduction, the first Ghana compact with the Millennium Challenge Corporation (MCC) aimed to reduce poverty through economic growth led by the agriculture sector. The compact funded three projects designed to increase agricultural production and productivity and enhance the competitiveness of high-value cash and food crops. These were the Agriculture, Transportation, and Rural Development projects. Improvements to transportation networks were funded by the Transportation and Agriculture Projects, including: (1) upgrading a key segment of the National Highway 1 (N1) in order to reduce bottlenecks between the Kotoka International Airport and the Port of Tema, (2) improvements to segments of a secondary, or trunk road in the Afram Basin, and (3) the rehabilitation of tertiary or feeder roads in eight districts.

MCC SECTOR
Transport (Trans)

PROGRAM LOGIC
The investment in Ghana’s roads infrastructure was intended to support agribusiness development by expanding access to domestic and international agricultural markets. Roads improvements would reduce vehicle operating costs (VOCs) and travel times leading to increased and cheaper movement of goods and people on the roads. In turn, this would promote access to markets, increase investment, and increase the accumulation of human capital in order to increase the production and productivity of cash crops and the competitiveness of the agricultural sector in international markets. The N1 Highway activity focuses particularly on increased access to national and international markets for agriculture by addressing a major bottleneck near the Tema port within the region of Accra. The expected beneficiaries were road users (including transport operators and vehicle passengers) as well as farmers, who would receive increased cash crop revenue, and households living near the roads.

PROGRAM PARTICIPANTS
Roads users

Sampling

Study Population

Road users

Sampling Procedure

The expanded vehicle intercept survey will be carried out on three days per road, including both a market and nonmarket day. On the N1, we will randomly sample approximately 1,000 vehicles. This translates into approximately 0.5 percent of all traffic moving in both directions along the road. On high-traffic feeder roads (more than 1,000 vehicles per day), we will aim to sample 20 percent of all vehicles traveling along the road. For the trunk road and most feeder roads with a lower traffic volume, we plan to sample a larger proportion of vehicles, potentially on only one market and one nonmarket day.

Questionnaires

Overview

Community (traffic and vehicle operating cost survey), Administrative (transportation agency key informant interviews), Household (vehicle intercept survey and focus groups)

Data Collection

Questionnaires

Community (traffic and vehicle operating cost survey), Administrative (transportation agency key informant interviews), Household (vehicle intercept survey and focus groups)

Data Collectors

Name	Abbreviation	Affiliation
Daovtech Design Group		

Data Processing

No content available

Data Appraisal

No content available